

Memorandum

Date : January 19, 2005

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To : John L. Geesman, Presiding Member
Gary Fay, Hearing Officer

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From : California Energy Commission - James W. Reede, Jr., Ed.D
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Energy Facility Siting Project Manager

Subject : 2nd Errata to the Roseville Energy Park (03-AFC-01) Final Staff Assessment

Attached is Errata to the Traffic and Transportation, Condition of Certification, **TRANS-7**, filed by staff in the Roseville Energy Park Final Staff Assessment. The previously filed condition inadvertently had not included all staff input.

Language has been added to both the condition and verification regarding the meteorological measuring equipment necessary to establish monitoring baselines.

The three triggering events for installation of plume prevention equipment are now shown consistently in the condition and verification.

Due to ground-hugging plumes potentially occurring outside of daylight hours, the term "daylight hours for" was struck.

Timelines were changed in the verification section to conform to, and parallel a previously agreed-to **Visual 2** condition regarding the timing of submission of the design of the plume-abatable tower and its components. The logic then would follow that if the tower and its components have already been designed, then it should take no longer than 30 days for the project owner to supply updated design drawings in the event ground-hugging plumes are observed in the future.

The condition also had not previously required installation of either plume-prevention option by a specific date. New language requires installation prior to the next winter following the occurrence of any of three specific ground-hugging plume events. The condition was also changed to require continued plume monitoring if a proposed automatic control system is installed and operated. Additionally, the condition now addresses the actions necessary if the automatic control system fails to prevent plumes. This is the last of the issues to be resolved in the proceeding. Staff will be providing testimony to support the proposed condition.

Attachment

Cc: REP POS
Dockets

TRAFFIC AND TRANSPORTATION

CONDITION OF CERTIFICATION TRANS-7

TRANS-7 The project owner shall design and construct the cooling towers to be able to accommodate plume abatement technology.

The project owner shall develop a plan for the installation and operation of video cameras, video recorders, visible range measurement equipment or methods, and meteorological data collection equipment to monitor for cooling tower generated ground-hugging plumes on local roadways.

~~Upon~~ Prior to commencement of power plant operation, the project owner shall install video cameras, video recording equipment, ~~and~~ visible range measurement equipment or methods, and meteorological data collection equipment to collect windspeed, relative humidity and temperature, and shall operate the equipment during ~~daylight hours~~ for the months October through March in accordance with the approved monitoring plan.

If the cooling towers generate ground-hugging plumes that reduce driver sight distance visibility (using sight distance measurement standards in the CalTrans Highway Design Manual, 2001) to less than 150 feet on local roadways with posted speed limits up to 30 mph, or to less than 300 feet on local roadways with posted speed limits of up to 50 mph, or a vehicle accident is reported that identifies a ground-hugging plume as a contributing factor, or a legitimate CPM-verified traffic safety-related complaint is received that identifies a ground-hugging plume as a factor, the project owner shall be required to install either of the following:

1. Plume abatement technology with a dry-cooling section that has a stipulated plume abatement design point equal to the ~~worst-case~~ temperature and relative humidity recorded at the time that a ground-hugging plume that reduced the sight distance visibility below the levels described above were observed, or other abatement design point that the cooling tower manufacturer will guarantee to mitigate the ground-hugging plumes to visibility distances that are greater than the levels described above; or
2. An automatic control system that reduces plant operations to ensure that ground-hugging plumes do not form at the temperature, relative humidity and wind speed recorded at the time that a ground-hugging plume was observed that reduced the sight distance visibility below the levels described.

The project owner shall continue the ground-hugging plume monitoring program until either plume abatement technology or an automatic control system-as described above are installed or for three consecutive winters without observations of ground-hugging plumes that meet the sight distance visibility requirements above. Ground hugging plume monitoring may be extended beyond three years by the CPM if either the power plant operating profile during the winter monitoring periods is less than 75 percent of its capacity factor or the meteorological conditions were not conducive to plume formation. If there have been no observed plumes within the three year period, the CPM and project owner shall meet to discuss the need for continued monitoring.

If during the monitoring program a ground-hugging plume has caused sight visibility to fall below the distances stated above on a local roadway, or a vehicle accident has occurred which

reports a cooling tower generated ground-hugging plume as a contributing factor, or a legitimate CPM-verified traffic safety-related complaint is received that identifies a ground-hugging plume as a factor, the project owner shall immediately modify plant operations as necessary to prevent ground-hugging plumes until operation of the selected ground-hugging plume prevention option and shall notify the CPM. Plume monitoring shall continue during months in which the automatic control system is operating. Should the automatic control system fail to prevent ground-hugging plumes then the project owner shall install the plume abatement technology.

Verification: At least ~~960~~ 90 days prior to ~~construction~~ ordering of the cooling towers, the project owner shall provide to ~~both the City of Roseville City Engineer for review and comment and to the CPM for review and approval~~, the engineering specifications for the cooling towers that demonstrate that plume abatement technology can be installed at a later date if ~~appropriate~~ required. The material submitted to the CPM shall include a copy of the letter accompanying the transmittal to the City.

Prior to July 1 of the first year of plant operation, the project owner shall provide to ~~both the City of Roseville City Engineer for review and comment and to the CPM for review and approval~~ a plan for the ~~installation and operation of video cameras, video recorders, visible range measurement equipment or methods, and meteorological data collection equipment~~ to monitor for cooling tower generated ground-hugging plumes on local roadways. The CPM shall consider the meteorological conditions in determining when monitoring equipment will operate. The material submitted to the CPM shall include a copy of the letter accompanying the transmittal to the City.

The project owner shall provide to the CPM, within 30 days of the end of each ground-hugging plume monitoring month (October through March) a report that provides evidence of the existence or non-existence of cooling tower generated ground-hugging plumes on local roadways, the visibility distance data recorded during such ground-hugging plume events, if any, ~~and the power plant's capacity factor for the first four daylight hours for each hour day of the month when the power plant was operating, and the meteorological data for that month.~~ This report shall be provided on electronic media (CD, diskette, or memory stick).

If at any time during each year's ground-hugging plume monitoring period the project owner or the CPM determines that the project is causing ground-hugging plumes on local roadways that lower visibility below the standards listed in this condition, or a vehicle accident has occurred which reports a cooling tower generated ground-hugging plume as a contributing factor, or a legitimate CPM-verified traffic safety-related complaint is received that identifies a ground-hugging plume as a factor, the project owner shall within ~~42~~ 30 days provide to ~~both the City of Roseville City Engineer for review and comment and to the CPM for review and approval~~, the engineering specifications for the ground-hugging plume prevention option chosen (abatement technology and/or automatic control system). If selected, the project owner shall install the selected abatement technology option prior to October 1st of the following season. If the automatic control system is selected it shall be installed within 60 days of the plume occurrence. If the project owner learns ~~makes the determination~~ that the project is causing ground-hugging plumes on area roadways that lower visibility below the standards listed in this condition, the project owner shall notify the CPM within 24 hours of making such an occurrence a determination.